

Specn. No. RDSO/2006/EL/SPEC/0042 (Rev '0')



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**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS**

**PROCUREMENT SPECIFICATION FOR BOGIE
FOR
ELECTRIC LOCOMOTIVES**

JULY - 2006

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**RESEARCH DESIGNS AND STANDARDS ORGANISATION
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Material Description and specification:

- A. Assembled bogie for WAG5 loco with brake rigging, brake cylinder and pneumatic pipelines as per following drawings and specification.**

SN	Equipment	Description	Drawing No.	Specification no.
1.	Bogie frame	Bogie frame assembly	KPA's Drg. No. ER/KPA/ELA/BE-1003 & ER/KPA/ELA/BE-1004	MP.0.4900.04 Rev 01 – Oct'2004
2.	Brake rigging		KPA's Drg. No. ER/KPA/ELA/AR-294 Sheet No. 1 and ER/KPA/ELA/AR-294 Sheet No. 2	

- B. Assembled bogie and bolster for WAP4 loco with brake rigging, brake cylinder and pneumatic pipelines as per following drawings and specification.**

SN	Equipment	Description	Drawing No.	Specification no.
1.	Bogie frame assembly	General arrangement of Bogie(sheet no:1).	CLW's Drg. No. 03/1/10/1	MP.0.4900.04 Rev 01 – Oct'2004
		Bogie Frame Assly	CLW's Drg. No. 03/1/12/38	- do -
		Bolster Assly-.	CLW's Drg. No. 03/1/12/40	- do -
2.	Brake gear arrangement	Brake Gear arrangement	CLW's Drg. No. 03/1/19/36, 03/1/19/37 and 03/1/19/38	

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- C. Assembled bogie for WAG7 loco with brake rigging, brake cylinder and pneumatic pipelines as per following drawings and specification.**

SN	Equipment	Description	Drawing No.	Specification no.
1.	Bogie frame	Bogie frame assembly.	CLW's Drg. No. 06/1/12/78, 06/1/12/79 and 06/1/10/2	VL.Spec-6 (Rev 01) – Jan'2001
2.	Brake rigging	Brake gear arrgt.& Details	CLW's Drg. No. 06/1/19/108	

SPECIAL TERMS, CONDITIONS & GUIDELINES TO TENDERERS

1.0 Details of items:

Tenderers should submit their rate/tenders for –

- i) Bogie frame complete with brake rigging and pneumatic pipes, brake cylinder.
- ii) Transportation, packing and forwarding charges to the nominated destination for each of the items.

- 1.1 Purchaser reserves the right to order any one/some/all the items as per description. The order can be placed either for entire or part quantity.
- 1.2 Railways also reserve the right to increase/decrease the ordered quantity by 30%, if required.
- 1.3 Tenderers must submit their offer separately in two sealed envelopes. The first part of the bid, marked as packet 'A' will contain all the technical details of the assemblies/items as well as their past credentials along with testing facilities and also the technical man power. The second part, marked as packet 'B' will contain the commercial details including the rate of all the cost elements. However, both the part of the offer duly sealed would be in one more sealed cover as per practice in vogue.
- 1.4 The offer should be valid for 180 days from the date of opening of the technical offer. However, any price variation clause based on the raw materials cost should be mentioned separately and explicitly. The base price index should also be mentioned.
- 1.5 All the raw materials, items, spares and components required for manufacturing/equipping of all the assemblies of bogies should be arranged / purchased by the tenderers irrespective of any reference in this regard in any specifications or drawings as mentioned above from approved sources of CLW/RDSO only. In case there is no approved source of CLW or RDSO for any of the components/items tenderers should obtain RDSO's clearance for procuring such items from other sources.

2.0 Drawings/Specifications:

- 2.1 All the drawings and specifications as mentioned for individual items should be followed. The above drawings and specifications are main/assembly drawings. The part drawing numbers are given in the drawing for sub-assembly/assemblies. For any clarifications or queries with respect to drawings, specifications, sources of items and discrepancy if any may be sought from Sr. Executive Director Standards Electrical or Director Standard Electrical-1, RDSO.

- 2.2 Drawings for items/components as referred to in the assembly/sub-assembly drawings mentioned in the specn. should be obtained on payment from Dy. CEE/Design/CLW for CLW's drawing, Dy. CEE/P&D, E. Railway/Kanchrapara Workshop for KPA's drawing and RDSO for RDSO's drawing.
- 2.3 The latest alterations/modifications in all the relevant drawings/specifications should be followed by all the Tenderers.
- 2.4 The prospective vendor should acquaint himself with the various items, equipments, testing methods and other facilities required by visiting Electric Loco Sheds, workshops dealing with the POH of electric locomotives.

3.0 Infrastructures & Credentials:

- 3.1 Tenderers should have minimum facilities of infrastructure, manufacturing, testing and quality control requirements as given in RDSO STR No. IL-45:2003 Rev '0' for 3 axle cast steel trimount and flexi-coil bogie frame & bolster for locomotives, MP Guide No. 17 (Rev '01') for fabricated bogie frame and bolster assembly for locomotives.
- 3.2 Along with technical offer, the details of infrastructural facilities as given in relevant STR, organization, man power available with the tenderer shall be enclosed with technical bid. This includes details of machinery and plants, jigs and tools, testing facilities, lab facilities for raw materials testing, measuring tools and instruments and qualification of man power available with them.
- 3.3 Tenderers must submit their Quality Assurance Programme (QAP) for complete process of manufacturing of assemblies including assembly and testing of motorised bogie. The QAP would be approved by RDSO.
- 3.4 Tenderers must submit their credentials for supply of same or similar items to various Railway Units. The details of supplies should be given along with proof of purchase orders and delivery details (copy of receipt note/inspection note etc).

4.0 Sub-vendors:

- 4.1 The details of activities where tenderer would take assistance from others should also be furnished.
- 4.2 In all such cases the QAP of sub-vendors should also be submitted as a part of QAP of the tenderer.

5.0 Inspection:

- 5.1 The inspection of the sub-assembly/assembly and bogie would be done as follows –

Stage 1: Bogie frame 100%.

Stage 2: Bogie frame with brake rigging, pneumatic pipeline, brake cylinder etc 100%.

- 5.2 Testing of above items can be arranged at the premises of the tenderer or their sub-vendors/agencies of repute/Govt. approved.
- 5.3 At the time of inspection the bill of materials (BoM) indicating the source of supply, internal test certificate etc would also be shown to the Inspecting Authority. A record to this effect should be maintained by the tenderers.
- 5.4 Tenderers should provide free of cost all the facilities required for testing of all the items.
- 5.5 Railways reserve the right for carrying out any surveillance inspection at any stage in the premises of tenderers as well as in its sub-vendor during any stage of manufacturing/assembly of sub-assemblies as well as bogies with traction motor or without traction motor.
- 5.6 Railways reserve the right to reject any sub-assembly, equipment, spares and items during the stage inspection if not found conforming to the drawing/specn. The decision of Railways would be final in this respect.
- 5.7 During the course of various stages of inspection approved QAP of the tenderers will be followed. For any deviation from the QAP, changes in material, testing procedure, process will have to be informed by the tenderers well in advance and should be approved by RDSO.
- 5.7 The inspection of 1st one loco set of each type will be carried out by RDSO and balance by inspecting agency nominated by purchaser.
- 5.8 All the cost incurred for testing including from outside agencies would be borne by the tenderers.
- 6.0 **Delivery:**
- 6.1 Tenderers should clearly give their delivery schedule as follows –
- a) Date of commencement of supply.
 - b) The rate of supplies per month.
 - c) The date of completion of the supply of total quantity as per order.
- 6.2 All the sub-assemblies/assemblies should be properly packed to avoid damage during transit.
- 6.3 The transportation of assemblies/assembled bogie including safe transshipment and unloading in good condition at the nominated consignee should be responsibility of the tenderers. Any damage occurred will be on tenderers account.

- 6.4 Delivery would only be deemed as completed after receipt of all material at the consignee's end in good condition.
- 6.4 The Tenderer would ensure the insurance cover for all the items during transit as per the cost given in the final purchase order. The cost of insurance will be borne by the tenderer.
- 6.5 Tenderers should quote for delivery upto destination.
- 7.0 **Field Trials:**
 - 7.1 Railways reserve the right to put 1st lot or 10% of the total ordered quantity or minimum 2 nos. of the bogies (1 loco set) for field trials for 3 months.
 - 7.2 The field trials would be conducted by the nominated consignee along with the representative of the tenderers.
 - 7.3 Various parameters as per specifications would be monitored, recorded and jointly signed by the consignee and the tenderers for further evaluation and records.
 - 7.4 During the course of field trials, the delivery would not be deemed as completed.
 - 7.5 The decisions made on the observations during the field trials by the Railways would be final and binding to the tenderers.
- 8.0 **Warranty/Guarantee:**
 - 8.1 Warranty/Guarantee of assemblies/sub-assemblies except bogie frame and bolster for 24 months from the date of commissioning or 30 months from the date of supply whichever is earlier is to be given by the tenderer. The recommended warranty period for bogie frame and bolster will be 5 years.
 - 8.2 The guarantee would cover free replacement of all the items/spares against any defect due to poor quality of materials or bad workmanship.
 - 8.3 The warranty repairs and replacement of items should be done by the tenderers in its own premises or at the consignees end if permitted by the Railways.
 - 8.4 After the warranty repairs, the successful warranty repairs would be certified by the consignee and its decision would be final.

9.0 Terms of payment:

- 9.1 Payment shall be made after receipt of materials in good condition at consignee's end as per clause 6.0. Along with the bill valid ITCC and STCC, inspection certificate, copy of challan duly received by the consignee (not below JA grade officer of Railways) should be submitted.

10.0 Liquidated damage for delay in completion:

If the tenderers fail to execute and complete the work within the time as specified in the purchase order/agreement except in so far as the delay is on purchasers account, the tenderer shall accept the levy of liquidated damages as per extent IRS condition of contract.

11.0 Other terms & conditions:

In general the contract will be governed by the IRS terms & conditions of stores contract.

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